Core. of

dielectric as described above, is laminated to first surface 220 of substrate 214. A power plane 234 is disposed below substrate 214 and a second substrate 260 is disposed below power plane 234. Conductive pad 262 of plated through hole 224 is formed on top of non-conductive layer 256. Additionally electrically conductive circuitry 218 is formed on top of non-conductive layer 256. Circuitry 218 may include trace lines, pads or the like. In this manner, non-conductive layer 256 prevents glass fibers contained in substrate 214 from causing shorts between trace lines or between circuitry 218 and pad 262 or between other circuitry contained within electrically conductive circuitry 218. In addition to the previously cited materials, resin coated copper foils, such as Allied Signal Companies' "RCC" material, may be used to form layer 256 and the circuitry 262 and 218.

## IN THE ABSTRACT:

Please replace the abstract with the following amended abstract:



A printed circuit board for use in an electronic device package such as a ball grid array package or organic chip carrier package. This printed circuit board includes a glass-free dielectric for separating and insulating power cores, circuitry or plated through holes from each other to prevent shorts caused by a migration of conductive material along glass-based prepreg substrates.